

Seizures

What is a seizure?

A seizure is a symptom, not a disease. It is caused by a sudden abnormal electrical discharge in the brain. If the activity stays in one part of the brain, a part of your body twitches or jerks. However, if the activity spreads in your brain, you may lose consciousness and have a grand mal (total body) seizure.

If you have repeated seizures, your health care provider may diagnose **seizure disorder or epilepsy**. This diagnosis means your provider can find no correctable cause for the seizures but tests may show abnormal electrical wave patterns in your brain as the cause of your symptoms.

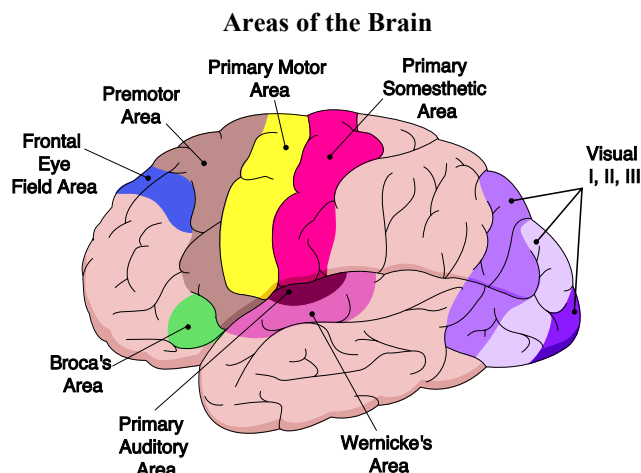
How does it occur?

A seizure is a symptom associated with many diseases and conditions, including:

- ♦ head injury
- ♦ brain injury at birth
- ♦ brain infections such as meningitis or encephalitis
- ♦ brain tumor
- ♦ stroke
- ♦ drug intoxication
- ♦ withdrawal from alcohol and drugs such as narcotics, cocaine, tranquilizers, and sleeping pills
- ♦ metabolic imbalances.

The **2 most common types of seizures** are:

1. **focal or partial seizures**, which begin in a specific area of the brain but sometimes may spread to involve all of the brain
2. **generalized seizures**, which seem to involve all of the brain from the start of the seizure.



These main categories are further divided into 2 types of seizures based on the pattern of the attack:

- ♦ **Grand mal:** a generalized seizure that starts with a loss of consciousness and falling down, followed by a brief period of rigid muscles and a 1- to 2-minute period of violent, rhythmic jerking. The seizure ends with a few minutes of deep sleep before you return to consciousness. You will probably not remember the seizure and be drowsy for hours after the seizure.
- ♦ **Petit mal:** a short period of staring, fluttering eyelids, or twitching of facial muscles. Each seizure may last only 10 to 30 seconds, but hundreds may happen each day. Usually you do not remember the seizure. Petit mal seizures usually begin when you are a child.

A nearly constant series of seizures or one prolonged seizure is called **status epilepticus**. It can be life threatening and is treated as a medical emergency.

What are the symptoms?

Symptoms of a seizure can include:

- ♦ uncontrollable twitching or jerking of part of the body (for example, the hand or foot)
- ♦ prolonged muscle spasms spreading to the arms and legs
- ♦ hallucinations, which may be visual or involve other senses such as hearing, touch, or taste
- ♦ intense feelings of fear or déjà vu (the feeling that you are encountering circumstances or a place that you previously experienced)
- ♦ aura, a peculiar sensation that occurs just before a seizure (for example, seeing flashing lights or hearing noises)
- ♦ loss of consciousness
- ♦ loss of control of your bladder muscles so that you wet yourself.

How is it diagnosed?

Your health care provider will examine you and take your medical history. You may have blood tests and one or more of the following safe and painless tests or scans:

EEG, which measures electrical activity in the brain

MRI (magnetic resonance imaging) scan, which uses magnetism, radio waves, and a computer to produce a picture of the inside of your head

CT (computed tomography) scan, in which x-rays are taken of your brain at different angles and then combined by a computer.



CT Scan

How is it treated?

The treatment for seizures depends on the cause. Your health care provider may prescribe an anticonvulsant drug. This medication will help prevent seizures. Your health care provider will adjust the dosage to minimize any side effects from the drug.

If your seizures continue while you are taking medication, your provider will:

- ◆ Check the level of the drug in your blood.
- ◆ Make sure you are taking your medication as prescribed.
- ◆ Make sure you aren't drinking alcohol or using illegal street drugs.
- ◆ Check to see if you are taking other medicines that may interfere with the anticonvulsant.

Your friends and family should know **first aid for seizures**. When you have a seizure, they should:

1. **Loosen** clothing around your neck.
2. **Not** try to hold you down. You should be allowed to move freely. Objects should be moved away from you to avoid injury.
3. **Not** put anything in your mouth, but check for breathing. (The risk of biting your tongue is less than the danger of inhaling or being injured by anything put in your mouth.)
4. **Not** move you during a seizure unless there is danger of injury.
5. If you are **vomiting**, turn you on your side if possible.
6. **After the seizure** is over, turn you on your side while you become alert.
7. **Time** how long the seizure lasts. If it lasts more than 3 to 5 minutes or you seem not to be breathing, someone should call 911 emergency help.

It used to be that having epilepsy or a seizure disorder meant taking anticonvulsants for the rest of your life. Seizure specialists are now trying to determine who might safely try going off seizure medicines. Discuss your situation with your health care provider to see if or when you might be able to stop your medicine. Never stop taking your medicines without first checking with your provider.

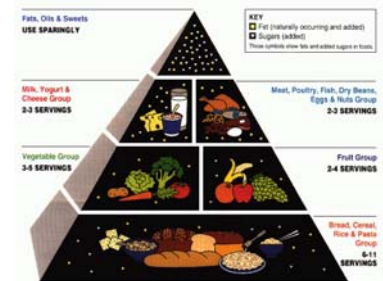
How can I take care of myself?

Follow the treatment prescribed by your health care provider.

Eat a nutritious diet and create a balance of work, rest, recreation, and exercise in your life.



Wear a medical ID bracelet.



Tell your supervisor and co-workers at work or your teachers at school that you may have a seizure. Tell them what to do if one occurs.

If your seizures are not well controlled, you should avoid high-risk sports such as skiing and scuba diving. Ask your health care provider which sports are safe for you.

Avoid high-risk jobs that involve heavy or fast-moving equipment, heights, bodies of water, or other situations where you or others might be injured if you have a seizure.



Avoid jobs that involve heavy equipment



Check local laws about driving

Ask your health care provider when you may safely drive a car again. In some states you must report a history of seizures when you apply for a driver's license. Check with your state's Department of Motor Vehicles for specific rules.

Keep a positive attitude and develop techniques to lessen stress.

What can I do to help prevent seizures?

To help prevent further seizures:

1. Take your medication as directed.
2. Make sure you get enough sleep every night. Getting too little sleep can be a major cause of seizures if you have a seizure disorder.
3. Avoid alcohol.
4. Avoid mood-altering drugs, including stimulants and sedatives.
5. If you start to develop a fever, reduce it promptly with aspirin or acetaminophen.
6. Call your health care provider if you have side effects from your medicine or if the seizures continue or increase.
7. Keep all of your follow-up appointments with your health care provider.



For more information, call or write:

Epilepsy Foundation of America
Epilepsy and Seizure Disorder Service
4351 Garden City Drive
Landover, MD 20785
800-332-1000
800-332-2070 (TDD)
Web site: <http://www.epilepsyfoundation.org>

Answers specific questions from callers, referrals to local chapters, catalog of educational materials (800-213-5821)

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